KUKA

KUKA Robots
for Heavy Payloads

KUKA

KUKA – YOUR STRONG PARTNER.

Quality made German robots built with the utmost commitment to our customer's needs. KUKA has been the basis for decades of exceptional technology helping companies to achieve process optimization. We were the pioneers in the world of robotics, and now are global leader in innovation. Our passion is finding future-oriented solutions to make even complex automation tasks simple. Whatever your application no matter the difficulty you can implement it with KUKA. Thanks to experienced KUKA system partners we are able to provide robotic solutions industry-wide. We strive to turn your ideas into reality. Use our experience to drive your success.

Giving you the power to succeed.

KUKA robots for heavy payloads from 360 kg to 1,000 kg.

Where complex work sequences with high loads are involved, KUKA robots for heavy payloads give your business decisive productivity advantages. They master the reliable handling and processing of large and heavy parts, the linking of work processes, the tending of machines, and palletizing.

Special variants adapt KUKA robots for heavy payloads ideally to your individual requirements. In the heat-resistant Foundry design, for example, they keep a cool head even in high temperature ranges.

To find out more about KUKA robots for heavy payloads, scan this QR code with your smartphone.

Ready to take on even the heaviest of duties.

Product overview

Robot	KR FORTEC	KR 360 R2830, KR 280 R3080, KR 240 R3330
		KR 500 R2830, KR 420 R3080, KR 340 R3330
		KR 600 R2830, KR 510 R3080, KR 420 R3330
	KR FORTEC MT	KR 500 R2830 MT, KR 480 R3330 MT
	KR TITAN	KR 1000 titan, KR 1000 L750 titan
Controllers		KR C4, KR C4 extended
Teach pendants		KUKA smartPAD

FLEXIBLE [+]

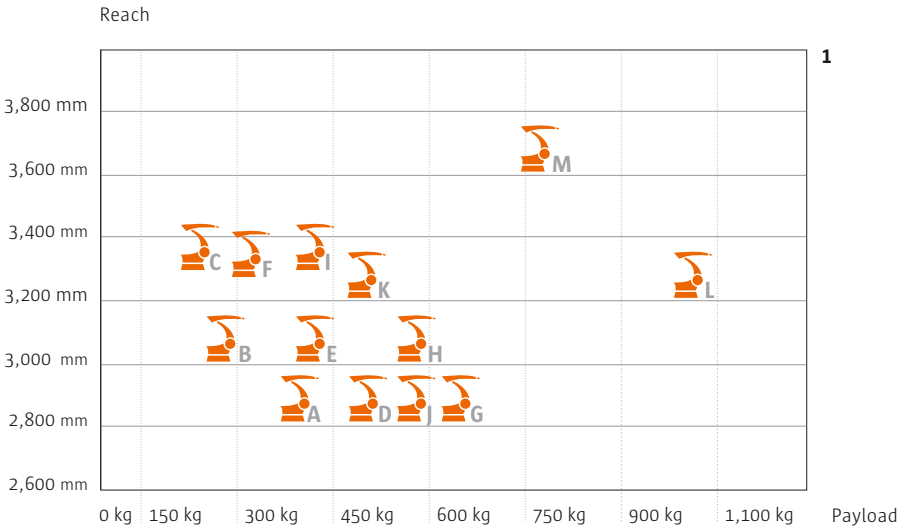
[+] PRODUCTIVE

[+] STREAMLINED

[+] LOW MAINTENANCE

VERSATILE [+]

[+] POWERFUL



1 KR 360 R2830 (A)
KR 280 R3080 (B)
KR 240 R3330 (C)
KR 500 R2830 (D)
KR 420 R3080 (E)
KR 340 R3330 (F)
KR 600 R2830 (G)
KR 510 R3080 (H)
KR 420 R3330 (I)
KR 500 R2830 MT (J)
KR 480 R3330 MT (K)
KR 1000 titan (L)
KR 1000 L750 titan (M)

Advantages and functions

PRODUCTIVE. Pose repeatability of ±0.08 mm and arm extensions up to 500 mm ensure reliable production quality.

POWERFUL. High payload capacities up to 1,000 kg enable the handling of heavy workpieces.

FLEXIBLE. A Choice of floor-mounted or ceiling-mounted versions allows optimal use in customized cell concepts.

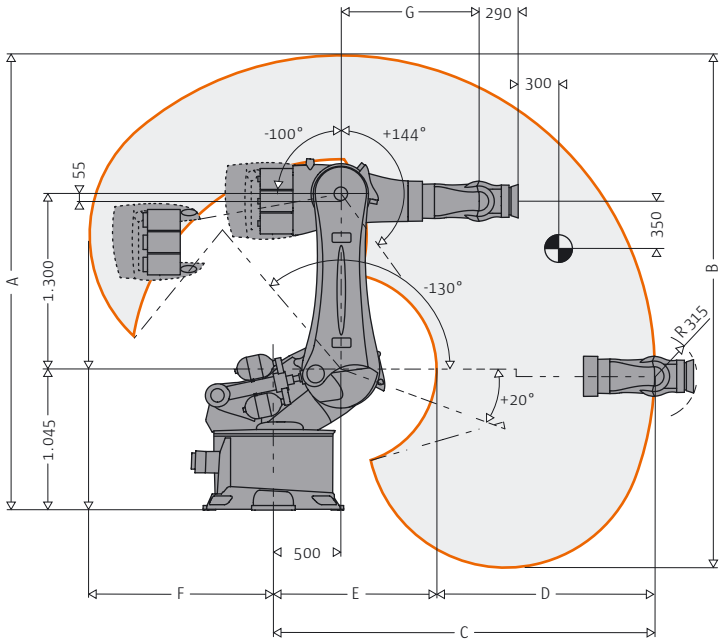
VERSATILE. Broad product spectrum, with heat-, dust- and water-resistant variants, provides high adaptability to all ambient conditions.

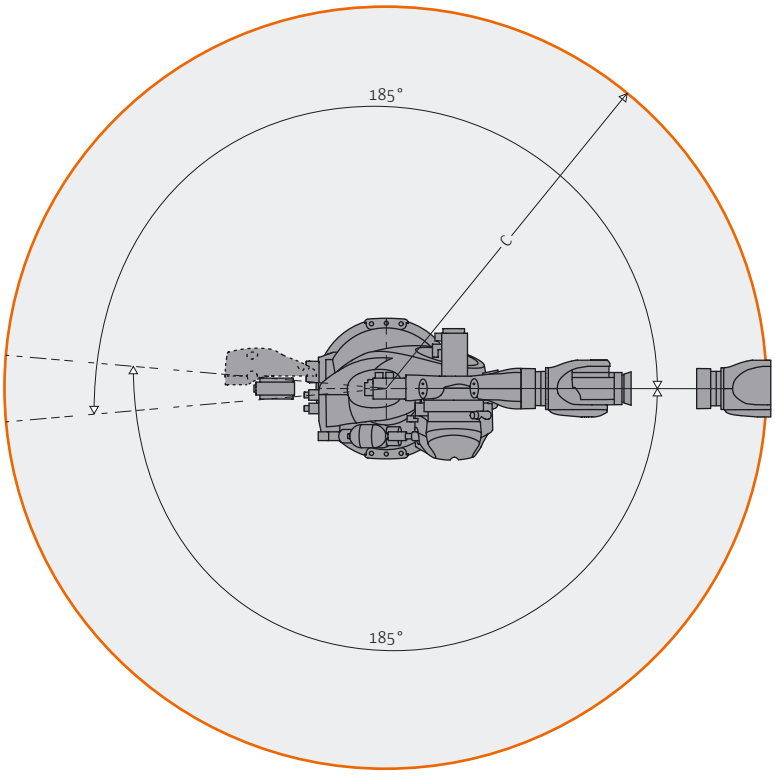
STREAMLINED. The reduced space requirements and low disruptive contours allow significantly more compact cell concepts in the heavy payload range.

LOW MAINTENANCE. KUKA robots offer the longest maintenance intervals on the market at around 20,000 operating hours, thus ensuring maximum productivity.

KR 360 FORTEC

Work envelope[1)]	Dimensions A	Dimensions B	Dimensions C	Dimensions D	Dimensions E	Dimensions F	Dimensions G	Volume
KR 360 R2830	3,371 mm	3,798 mm	2,825 mm	1,616 mm	1,210 mm	1,362 mm	1,025 mm	**68 m³**
KR 280 R3080	3,621 mm	4,297 mm	3,076 mm	1,833 mm	1,243 mm	1,612 mm	1,275 mm	**88 m³**
KR 240 R3330	3,871 mm	4,797 mm	3,326 mm	1,973 mm	1,353 mm	1,862 mm	1,525 mm	**114.5 m³**





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[1)] Relative to intersection of axes 4/5.

Features and advantages

PRODUCTIVE. Pose repeatability of ±0.08 mm and arm extensions up to 500 mm ensure reliable production quality.

POWERFUL. High payload capacities up to 360 kg.

FLEXIBLE. A choice between floor-mounted and ceiling-mounted versions allows optimal use in customized cell concepts.

VERSATILE. Broad product spectrum, with heat-, dust- and water-resistant variants, provides high adaptability to all ambient conditions.

	KR 360 R2830	KR 280 R3080	KR 240 R3330
Max. reach	2,826 mm	3,076 mm	3,326 mm
Rated payload	360 kg	280 kg	240 kg
Rated suppl. load, arm/link arm/rot. col.	50 kg/–/–	50 kg/–/–	50 kg/–/–
Rated total load	860 kg	780 kg	740 kg
Pose repeatability	±0.08 mm	±0.08 mm	±0.08 mm
Number of axes	6	6	6
Mounting position	Floor, ceiling[1]	Floor	Floor, ceiling[2]
Variant	F	F	F
Robot footprint	1,050 mm x 1,050 mm	1,050 mm x 1,050 mm	1,050 mm x 1,050 mm
Weight (excluding controller), approx.	2,385 kg	2,415 kg	2,421 kg

Axis data/

Range of motion		Speed	Speed	Speed
Axis 1 (A1)	+/-185°	100°/s	100°/s	100°/s
Axis 2 (A2)	+20°/-130°	90°/s	90°/s	90°/s
Axis 3 (A3)	+144°/-100°	90°/s	90°/s	90°/s
Axis 4 (A4)	+/-350°	120°/s	120°/s	120°/s
Axis 5 (A5)	+/-120°	110°/s	110°/s	110°/s
Axis 6 (A6)	+/-350°	160°/s	160°/s	160°/s

Operating conditions

Ambient temperature	+10 °C to +55 °C

Protection rating

Protection rating, robot	IP 65
Protection rating, in-line wrist	IP 65
Protection rating, foundry in-line wrist	IP 67

Controller
KR C4

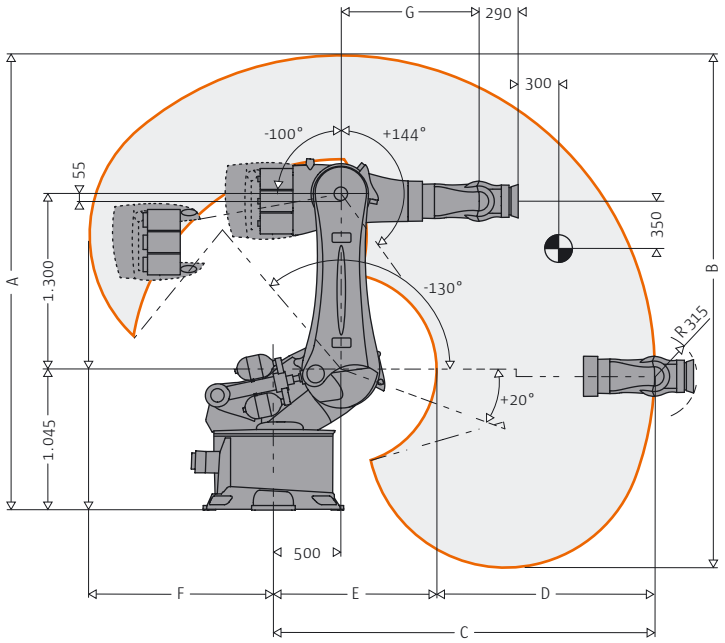
Teach pendant
KUKA smartPAD

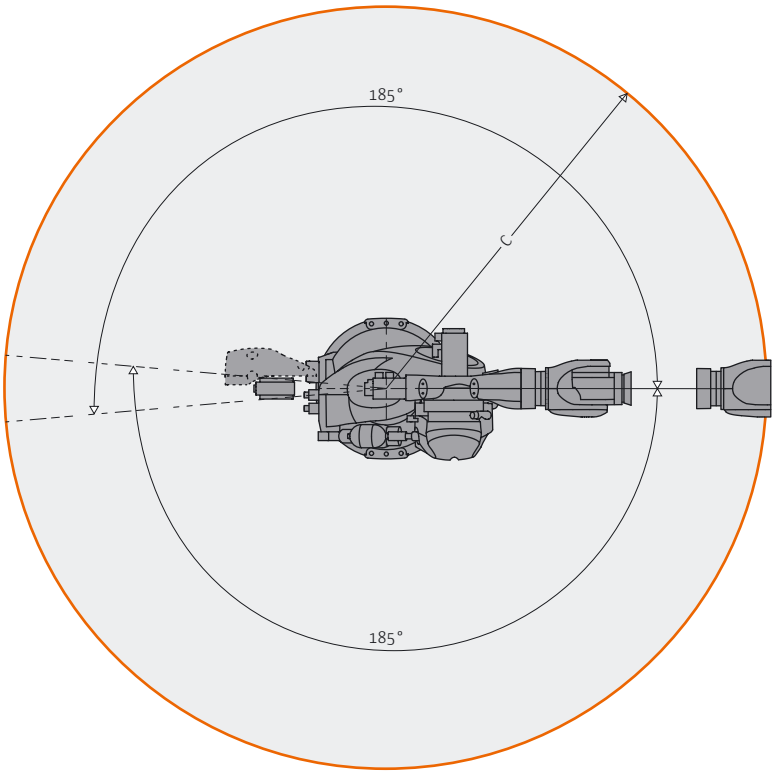
F Variant for environments with a high degree of fouling and high temperatures

1) Limited horizontal reach of 2,485 mm in ceiling mounting position.
2) Limited horizontal reach of 2,919 mm in ceiling mounting position.

KR 500 FORTEC

Work envelope[1)]	Dimensions A	Dimensions B	Dimensions C	Dimensions D	Dimensions E	Dimensions F	Dimensions G	Volume
KR 500-3	3,371 mm	3,798 mm	2,825 mm	1,616 mm	1,210 mm	1,362 mm	1,025 mm	**68 m³**
KR 500 L420-3	3,621 mm	4,297 mm	3,076 mm	1,833 mm	1,243 mm	1,612 mm	1,275 mm	**88 m³**
KR 500 L340-3	3,871 mm	4,797 mm	3,326 mm	1,973 mm	1,353 mm	1,862 mm	1,525 mm	**114.5 m³**





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[1)] Relative to intersection of axes 4/5.

Features and advantages

PRODUCTIVE. Pose repeatability of ±0.08 mm and arm extensions up to 500 mm ensure reliable production quality.

POWERFUL. High payload capacities up to 500 kg.

FLEXIBLE. A choice between floor-mounted or ceiling-mounted versions allows optimal use in customized cell concepts.

VERSATILE. Broad product spectrum, with heat-, dust- and water-resistant variants, provides high adaptability to all ambient conditions.

	KR 500 R2830	KR 420 R3080	KR 340 R3330
Max. reach	2,826 mm	3,076 mm	3,326 mm
Rated payload	500 kg	420 kg	340 kg
Rated suppl. load, arm/link arm/rot. col.	50/100/400 kg	50/100/400 kg	50/100/400 kg
Rated total load	1,000 kg	920 kg	840 kg
Pose repeatability	±0.08 mm	±0.08 mm	±0.08 mm
Number of axes	6	6	6
Mounting position	Floor, ceiling[1)]	Floor	Floor
Variant	F	F	F
Robot footprint	1,050 mm x 1,050 mm	1,050 mm x 1,050 mm	1,050 mm x 1,050 mm
Weight (excluding controller), approx.	2,385 kg	2,415 kg	2,421 kg

Achsdaten/

Bewegungsbereich		Speed	Speed	Speed
Axis 1 (A1)	+/-185°	90°/s	90°/s	90°/s
Axis 2 (A2)	+20°/-130°	80°/s	80°/s	80°/s
Axis 3 (A3)	+144°/-100°	75°/s	75°/s	75°/s
Axis 4 (A4)	+/-350°	90°/s	90°/s	90°/s
Axis 5 (A5)	+/-120°	83°/s	83°/s	83°/s
Axis 6 (A6)	+/-350°	130°/s	130°/s	130°/s

Operating conditions

Ambient temperature	+10 °C to +55 °C

Protection rating

Protection rating, robot	IP 65
Protection rating, in-line wrist	IP 65
Protection rating, foundry in-line wrist	IP 67

Controller
KR C4

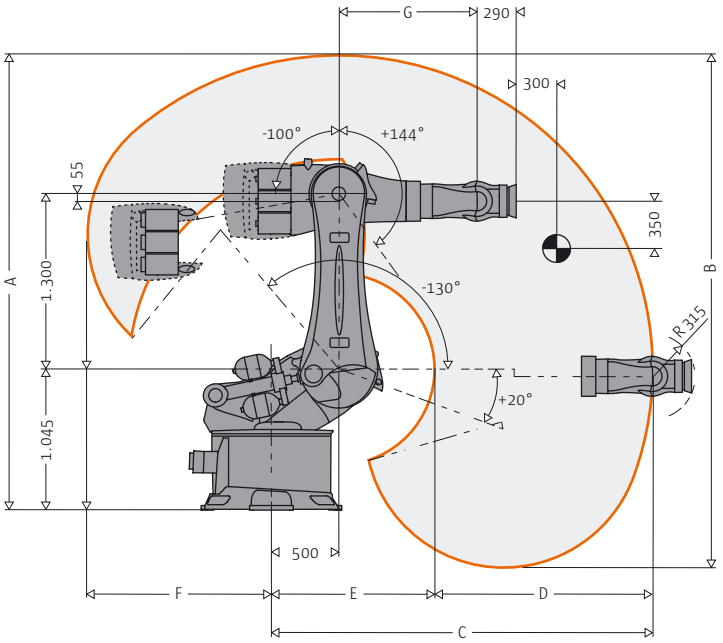
Teach pendant
KUKA smartPAD

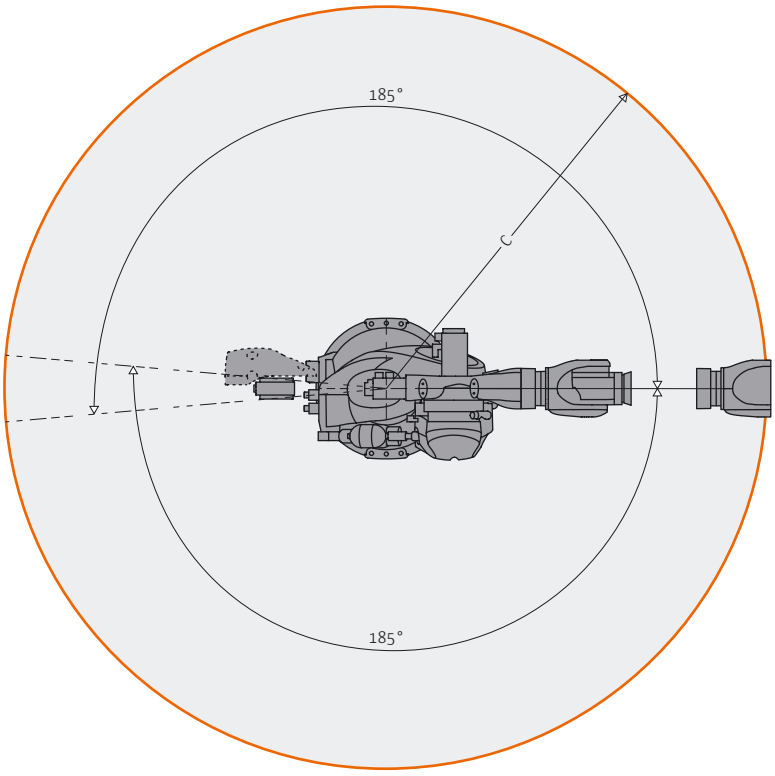
F Variant for environments with a high degree of fouling and high temperatures

1) Limited horizontal reach of 2,485 mm in ceiling mounting position.

KR 600 FORTEC

Work envelope[1)]	Dimensions A	Dimensions B	Dimensions C	Dimensions D	Dimensions E	Dimensions F	Dimensions G	Volume
KR 600 R2830	3,371 mm	3,798 mm	2,826 mm	1,616 mm	1,210 mm	1,362 mm	1,025 mm	**68 m³**
KR 510 R3080	3,621 mm	4,297 mm	3,076 mm	1,833 mm	1,243 mm	1,612 mm	1,275 mm	**88 m³**
KR 420 R3330	3,871 mm	4,797 mm	3,326 mm	1,973 mm	1,353 mm	1,862 mm	1,525 mm	**114.5 m³**





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[1)] Relative to intersection of axes 4/5.

Features and advantages

PRODUCTIVE. Pose repeatability of ±0.08 mm and arm extensions up to 500 mm ensure reliable production quality.

POWERFUL. High payload capacities up to 600 kg.

VERSATILE. Broad product spectrum, with heat-, dust- and water-resistant variants, provides high adaptability to all ambient conditions.

	KR 600 R2830	KR 510 R3080	KR 420 R3330
Max. reach	2,826 mm	3,076 mm	3,326 mm
Rated payload	600 kg	510 kg	420 kg
Rated suppl. load, arm/link arm/rot. col.	50/100/400 kg	50/100/400 kg	50/100/400 kg
Rated total load	1,000 kg	920 kg	840 kg
Pose repeatability	±0.08 mm	±0.08 mm	±0.08 mm
Number of axes	6	6	6
Mounting position	floor	floor	floor
Variant	F	F	F
Robot footprint	1,050 mm x 1,050 mm	1,050 mm x 1,050 mm	1,050 mm x 1,050 mm
Weight (excluding controller), approx.	2,650 kg	2,680 kg	2,686 kg

Axis data/

Range of motion		Speed	Speed	Speed
Axis 1 (A1)	+/-185°	80°/s	80°/s	80°/s
Axis 2 (A2)	+20°/-130°	75°/s	75°/s	75°/s
Axis 3 (A3)	+144°/-100°	70°/s	70°/s	70°/s
Axis 4 (A4)	+/-350°	70°/s	70°/s	70°/s
Axis 5 (A5)	+/-120°	70°/s	70°/s	70°/s
Axis 6 (A6)	+/-350°	110°/s	110°/s	110°/s

Operating conditions

Ambient temperature	+10 °C to +55 °C

Protection rating

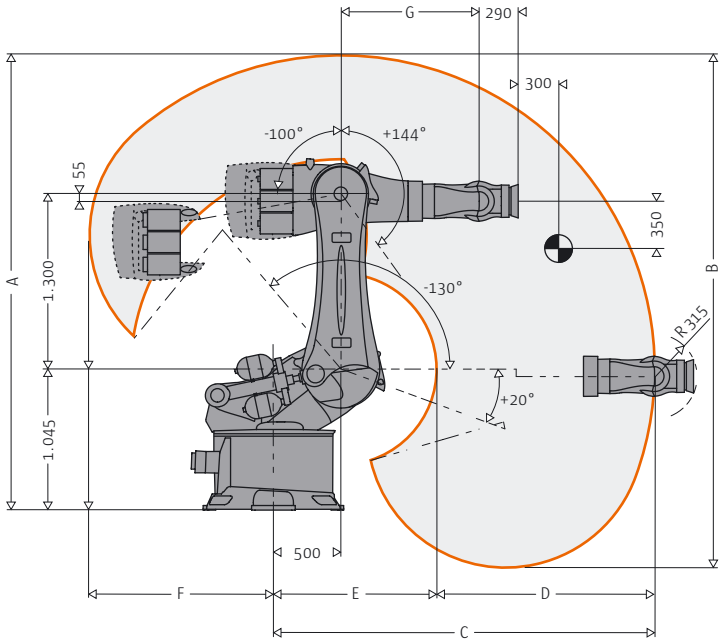
Protection rating, robot	IP 65
Protection rating, in-line wrist	IP 65
Protection rating, foundry in-line wrist	IP 67

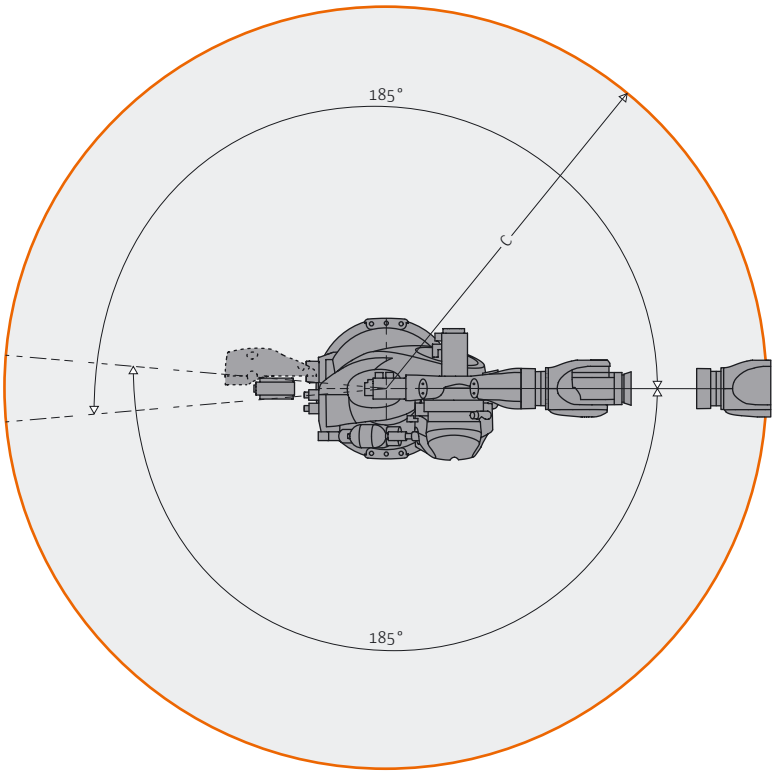
	Controller
	KR C4
	Teach pendant
	KUKA smartPAD

F Variant for environments with a high degree of fouling and high temperatures

KR 500 MT FORTEC

Work envelope[1)]	Dimensions A	Dimensions B	Dimensions C	Dimensions D	Dimensions E	Dimensions F	Dimensions G	Volume
KR 500 R2830 MT	3,371 mm	3,798 mm	2,825 mm	1,616 mm	1,210 mm	1,362 mm	1,025 mm	**68 m³**
KR 480 R3330 MT	3,871 mm	4,797 mm	3,326 mm	1,973 mm	1,353 mm	1,862 mm	1,525 mm	**118 m³**





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[1)] Relative to intersection of axes 4/5.

Features and advantages

VERSATILE. Precise versatility of motion of the jointed-arm industrial robot, even in the case of process forces of up to 8,000 N.

POWERFUL. Ideally suited to the milling of heavy and hard materials and other processes with application of strong forces, e.g. friction-stir welding, drilling or riveting.

LONG REACH. Reaches of up to 3,326 mm.

FLEXIBLE. Foundry or Milling variants available.

	KR 500 R2830 MT	KR 480 R3330 MT
Max. reach	2,826 mm	3,326 mm
Rated payload	500 kg	480 kg
Rated suppl. load, arm/link arm/rot. col.	50/100/400 kg	50/100/400 kg
Rated total load	1,000 kg	980 kg
Pose repeatability	±0.08 mm	±0.08 mm
Number of axes	6	6
Mounting position	floor	floor
Variant	F	F
Robot footprint	1,050 mm x 1,050 mm	1,050 mm x 1,050 mm
Weight (excluding controller), approx.	2,440 kg	2,475 kg

Axis data/

Range of motion		Speed	Speed
Axis 1 (A1)	+/-185°	45°/s	45°/s
Axis 2 (A2)	+20°/-130°	45°/s	45°/s
Axis 3 (A3)	+144°/-100°	45°/s	45°/s
Axis 4 (A4)	+/-350°	90°/s	90°/s
Axis 5 (A5)	+/-120°	83°/s	83°/s
Axis 6 (A6)	+/-350°	130°/s	130°/s

Operating conditions

Ambient temperature	+10 °C to +55 °C

Protection rating

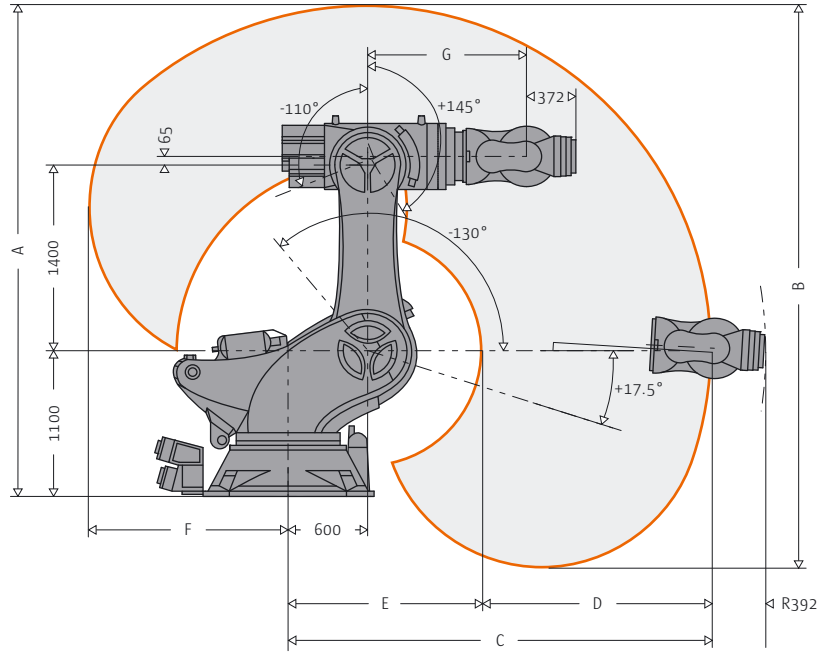
Protection rating, robot	IP 65
Protection rating, in-line wrist	IP 65
Protection rating, foundry in-line wrist	IP 67

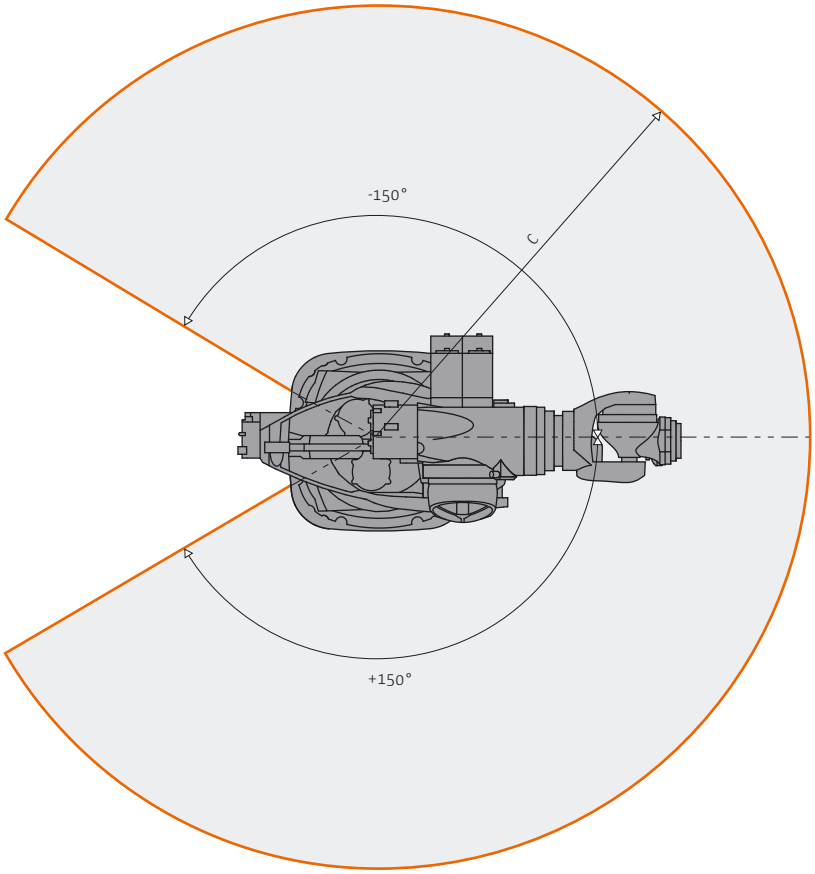
	Controller
	KR C4
	Teach pendant
	KUKA smartPAD

F Variant for environments with a high degree of fouling and high temperatures

KR 1000 titan

Work envelope[1)]	Dimensions A	Dimensions B	Dimensions C	Dimensions D	Dimensions E	Dimensions F	Dimensions G	Volume
KR 1000 titan	3,702 mm	4,225 mm	3,202 mm	1,732 mm	1,470 mm	1,502 mm	1,200 mm	**79.8 m³**
KR 1000 L750 titan	4,101 mm	5,024 mm	3,601 mm	2,022 mm	1,579 mm	1,901 mm	1,600 mm	**122.6 m³**





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[1)] Relative to intersection of axes 4/5.

Features and advantages

FAST. High speed and dynamic acceleration allow short cycle times.

EXPANDABLE. Wide range of applications with KUKA peripheral equipment, e.g. linear axes.

PRODUCTIVE. Minimal disruptive contours allow positioning close to the application effectively increasing the usable workspace.

EFFICIENT. Higher robot accuracy means greater manufacturing quality, less scrap, lower production costs, and thus greater efficiency.

EASY TO INTEGRATE. Simple integration into plants and systems, adaptation of foundations is not required. Saving additional investment costs.

	KR 1000 titan	KR 1000 L750 titan
Max. reach	3,202 mm	3,601 mm
Rated payload	1,000 kg	750 kg
Rated suppl. load, arm/link arm/rot. col.	50 kg/–/–	50 kg/–/–
Rated total load	1,050 kg	800 kg
Pose repeatability	±0.1 mm	±0.1 mm
Number of axes	6	6
Mounting position	floor	floor
Variant	F	F
Robot footprint	2,000 mm x 2,000 mm	2,000 mm x 2,000 mm
Weight (excluding controller), approx.	4,690 kg	4,740 kg

Axis data/ Range of motion		Speed with rated payload 1,000 kg	Speed with rated payload 750 kg
Axis 1 (A1)	+/-150°	58°/s	58°/s
Axis 2 (A2)	+17,5°/-130°	50°/s	50°/s
Axis 3 (A3)	+145°/-110°	50°/s	50°/s
Axis 4 (A4)	+/-350°	60°/s	60°/s
Axis 5 (A5)	+/-118°	60°/s	60°/s
Axis 6 (A6)	+/-350°	72°/s	72°/s

Operating conditions

Ambient temperature	+10 °C to +55 °C

Protection rating

Protection rating, robot	IP 65
Protection rating, in-line wrist	IP 65
Protection rating, foundry in-line wrist	IP 67

Controller
KR C4 extended

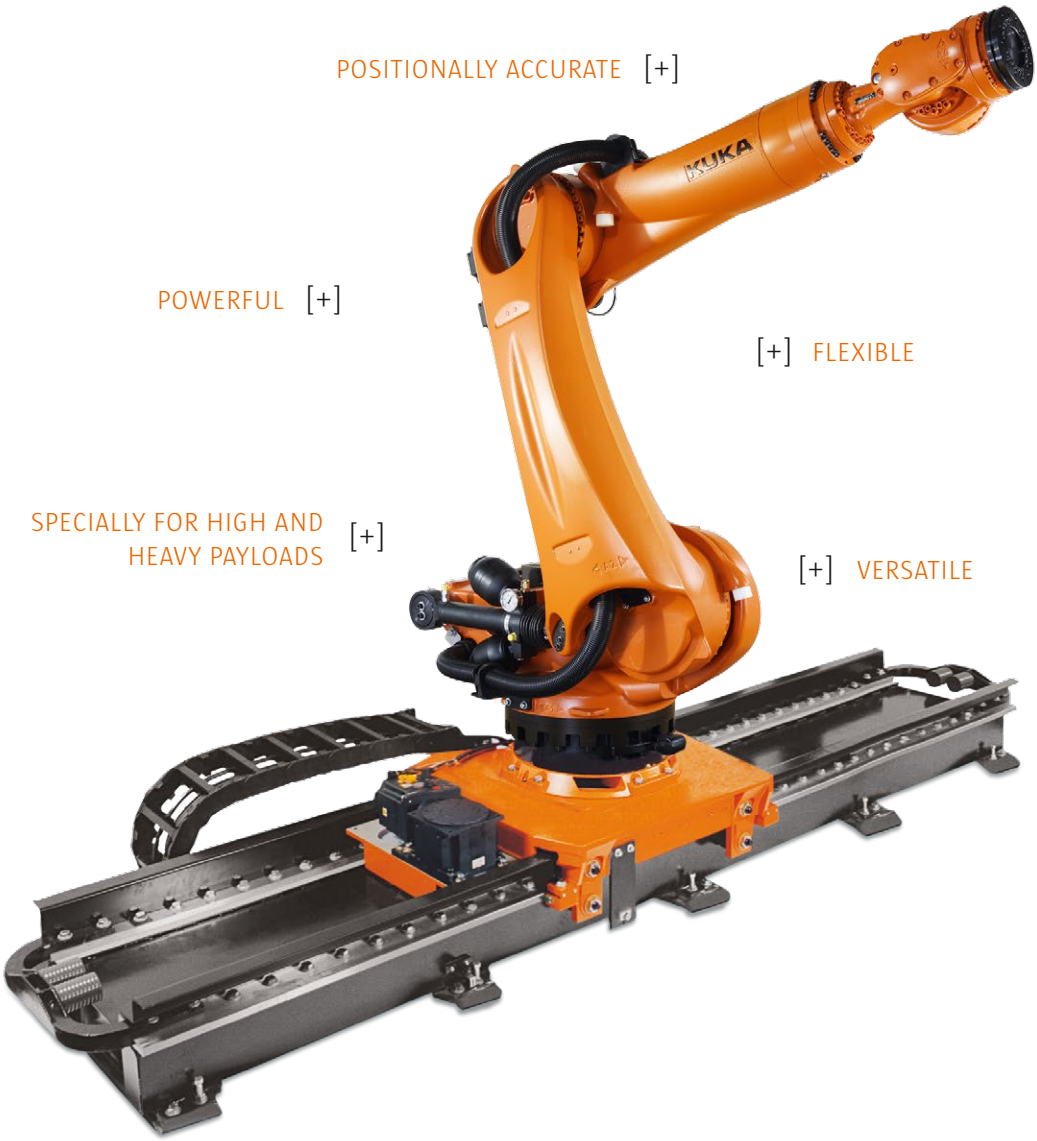
Teach pendant
KUKA smartPAD

F Variant for environments with a high degree of fouling and high temperatures

KL 1500-3

Product overview

Linear unit	KL 1500-3, KL 1500-3 S, KL 1500-3 T
Designed for robot categories	high payloads, heavy payloads
Controller	KR C4
Teach pendant	KUKA smartPAD



Features and advantages

FLEXIBLE. Long travel of up to 30 m extends the work envelope by several times the reach of the robot. Ideal for linking production lines.

POWERFUL. Additional version with high torque (e.g. for milling applications) and a high-speed variant for tasks requiring extreme speed and short cycle times.

VERSATILE. Floor-mounted and ceiling-mounted variants are available, as is a protective cover for keeping out dirt during tasks in harsh environments.

POSITIONALLY ACCURATE. Up to four robots can be operated on a linear axis. Multiple robot positions on the linear axis allow optimal adaptation to existing requirements and workspaces.

SPECIALLY FOR HIGH AND HEAVY PAYLOADS. This linear unit is suitable for robots with a payload from 90 to 600 kg.

	KL 1500-3 T	KL 1500-3 S	KL 1500-3
Number of carriages	4	4	4
Maximum rated travel	30,000 mm	30,000 mm	30,000 mm
Maximum velocity	1,89 m/s	2,35 m/s	1,45 m/s
Pose repeatability	< ±0.02 mm	< ±0.02 mm	< ±0.02 mm
Number of axes	1	1	1
Variant	CV	CV	CV
Mounting position	Floor, ceiling	Floor, ceiling	Floor, ceiling
Mass of carriage	440 kg	440 kg	440 kg
Mass of rated payload	2,000 kg	3,800 kg	2,000 kg
Mass of beam per meter	345 kg	345 kg	345 kg
Minimum rated travel	1,000 mm	1,000 mm	1,000 mm
Gradation of rated travel	500 mm	500 mm	500 mm
Transmission of force	Rack	Rack	Rack

Ambient temperature

Ambient temperature	+10 °C to +55 °C

Controller
KR C4

Teach pendant
KUKA smartPAD

CV Covered version

KL 3000

Product overview

Linear unit	KL 3000
Designed for robot categories	Heavy payloads
Controller	KR C4
Teach pendant	KUKA smartPAD

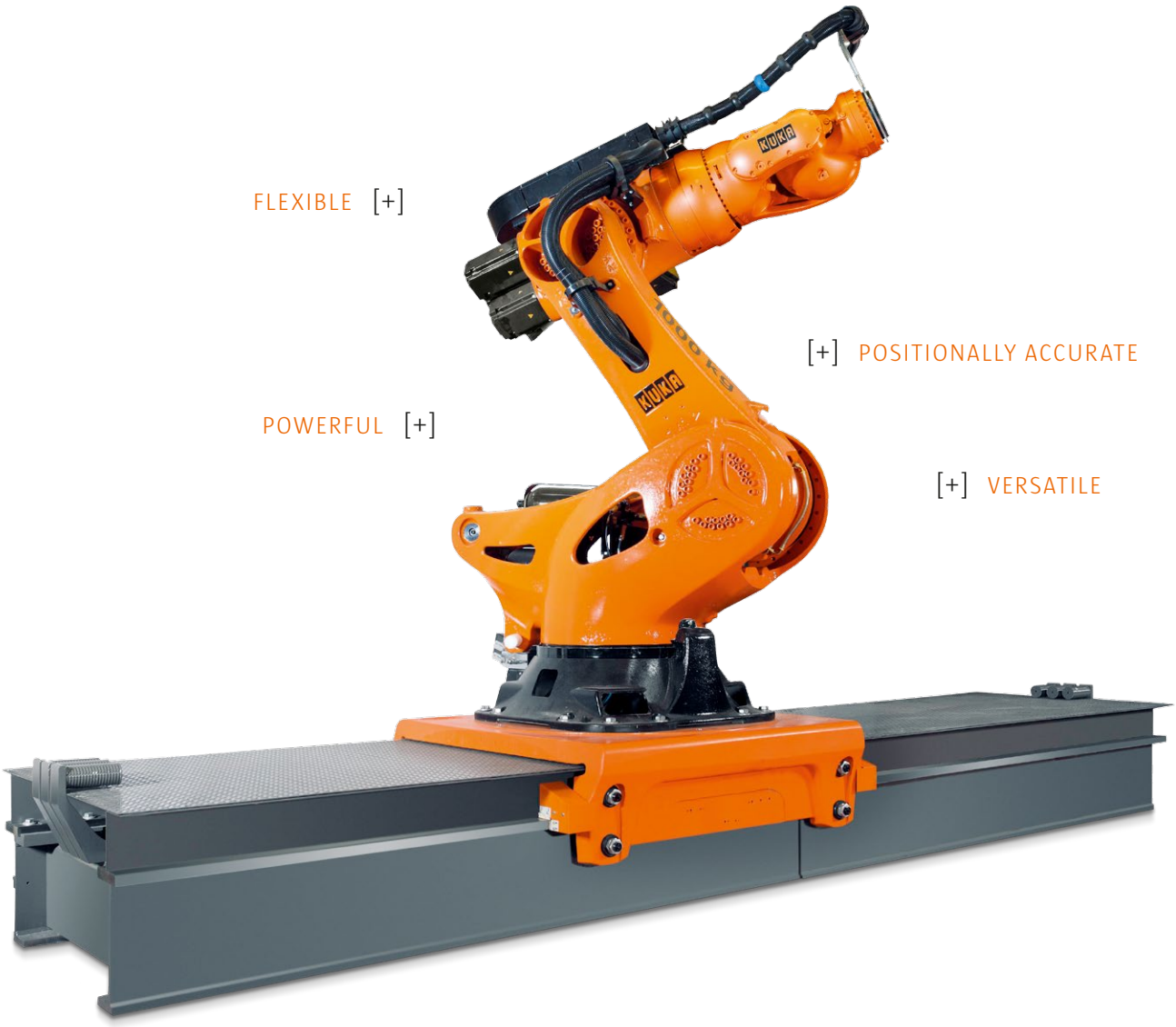
SPECIALLY FOR HEAVY PAYLOADS [+]

FLEXIBLE [+]

[+] POSITIONALLY ACCURATE

POWERFUL [+]

[+] VERSATILE



Features and advantages

FLEXIBLE. Long travel of up to 30 m extends the work envelope by several times the reach of the robot.

POWERFUL. Works quickly and precisely, with maximum payload and robustness.

VERSATILE. A protective cover is available for keeping out dirt during tasks in harsh environments.

POSITIONALLY ACCURATE. Up to two robots can be operated on a linear axis. Multiple robot positions on the linear axis allow optimal adaptation to existing requirements and workspaces.

SPECIALLY FOR HEAVY PAYLOADS. This linear unit is suitable for robots with a payload from 700 to 1,300 kg.

KL 3000

Number of carriages	2
Maximum rated travel	29,800 mm
Maximum velocity	1.45 m/s
Pose repeatability	< ±0.02 mm
Number of axes	1
Variant	CV
Mounting position	Floor
Mass of carriage	2,500 kg
Mass of rated payload	6,500 kg
Mass of beam per meter	720 kg
Minimum rated travel	800 mm
Gradation of rated trave	500 mm
Transmission of force	Rack

Ambient temperature

Controller	+10 °C to +55 °C

Controller

KR C4

Teach pendant

KUKA smartPAD

CV Covered version

An unbeatable team.

Product overview

[+] FASTER AS A TEAM

Robots and other kinematic systems

[+] SAFER AS A TEAM

System controller: KR C4

NO MATTER WHICH ROBOT YOU OPT FOR KUKA OFFERS YOU THE MATCHING SYSTEM COMPONENTS. KUKA robots embody all the essential characteristics of future-oriented robot technology. KUKA robots are more reliable and more flexible than ever with the ability to master heavy loads and long reaches with extreme precision. Thanks to an outstanding availability of nearly 100 %, KUKA robots make the automation processes easier than ever before.

KR C4 – THE CONTROL SYSTEM OF THE FUTURE. More powerful and safer, with more flexibility. Its open architecture can manage all kinematic systems and even complete production lines. The KR C4 provides a firm foundation for the automation of tomorrow. This significantly reduces your costs in automation for integration and maintenance. At the same time the long-term efficiency and flexibility of the systems are increased. The KR C4 gives you the necessary openness to meet the requirements of tomorrow's markets.

99.995 %

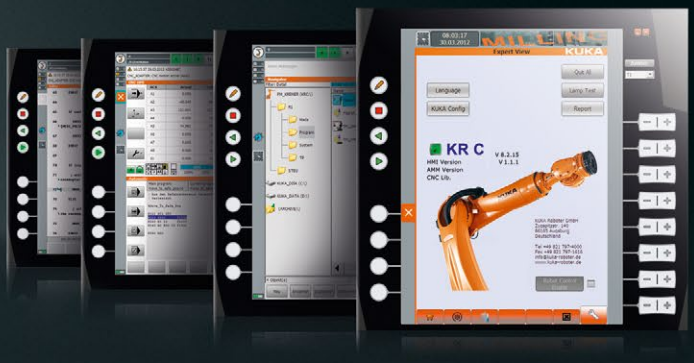
AVAILABILITY. ROBUST AND LOW ON MAINTENANCE, THIS UNBEATABLE TEAM WORKS NON-STOP ON YOUR SUCCESS.

[+] SIMPLER AS A TEAM

Teach pendant: KUKA smartPAD

THE SIMPLEST WAY OF OPERATING ROBOTS. Touch screen. Graphics support. Flexible interaction. The large touch screen of the KUKA smartPAD allows operation of both robots and entire systems, all visually represented on the screen. The display adapts to show the user only those operator control elements that are needed at any given moment. Attention is always focused on what is important, allowing users to work more intuitively, quickly, easily and efficiently.

[+] MORE VERSATILE AS A TEAM



Function and technology packages

AN OPTIMALLY PREPARED, EFFICIENT SOFTWARE SOLUTION FOR EVERY TASK. KUKA function and technology packages breathe life into the KUKA robots. They enable them to carry out particular industry-specific functions within an automation solution. Gluing, moving, machining, measuring, handling or working together with humans or other synchronized robots: KUKA function and technology packages make automation easy.

KR C4

The control system of the future

MORE POWERFUL, SAFER, MORE FLEXIBLE, AND MORE INTELLIGENT. The KR C4 has been created for the automation of today and tomorrow. Thanks to its open architecture it is a master of simple integration. It can communicate in a wide range of programming languages and is ideally suited to the control of KUKA manipulators. It can carry out a vast range of tasks, be used for robots of all payload categories, and control entire production lines. With the KR C4 all integrated controllers, SafetyControl, RobotControl, MotionControl, and LogicControl have a joint database and infrastructure for maximum performance, scalability, and flexibility.

[+] FOR ALL PAYLOADS

ALL-ROUNDER [+]

[+] ±0.002 SEC I/O RESPONSE TIME

UNIVERSAL APPLICATION [+]

[+] ENERGY-EFFICIENT

COMMUNICATION TALENT [+]

ROBUSTNESS [+]

e– energy-saving

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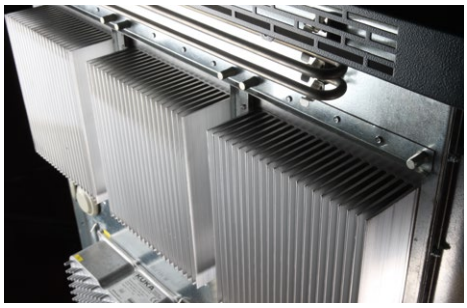
1



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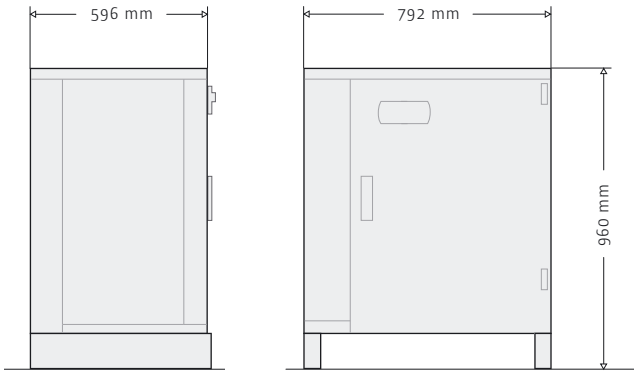

3

1 Increased system availability through systematic reduction of hardware, cables and connectors

2 The passive heat exchange system, with separate air circulation in the inner and outer zones of the controller, allows low-maintenance operation even in dusty environments. Entirely without filter mats.

3 Dimensions of the KR C4

Features and advantages

ALL-ROUNDER. Safety, Robot, Logic and MotionControl – the KR C4 combines everything in a single controller allowing effortless control of the entire system.

UNIVERSAL APPLICATION. The open architecture of the KR C4 can control not only KUKA robots but also external axes – for maximum flexibility, scalability, performance and openness, in minimum space.

FOR ALL PAYLOADS. The KR C4 is the uniform controller for all KUKA robots, ranging from the low to high payload range categories.

COMMUNICATION TALENT. In addition to its own robot language KRL, the KR C4 understands the language of the CNC machining world (G-code) and the language of PLCs, enabling it to communicate directly with your Siemens® or Rockwell® controller.

ROBUSTNESS. The consistent choice of durable components and well-designed cabinet ensure long-term, reliable operation, even in extreme conditions.

±0.002 SEC I/O RESPONSE TIME. Secure data exchange measured in milliseconds forms the basis for new safety concepts in human-machine cooperation.

ENERGY-EFFICIENT. The new energy management system allows the energy consumption of the controller to be reduced by up to 95 %* in standby mode. The improved cooling concept, combined with a temperature-controlled fan, further reduces the power dissipation of the controller, while making operation considerably quieter.

* in standby mode and Ecomode.

KR C4 controller

Type	KR C4
Processor	Multi-core technology
Hard drive	HDD, SSD optional
Interface	USB, EtherNet
Field buses	PROFINET, EtherNet/IP, PROFIBUS, DeviceNet, EtherCAT, Interbus
Max. number of axes	8
Protection rating	IP 54
Dimensions (D x W x H)	596 mm x 792 mm x 960 mm
Weight	150 kg

Power supply connection

Rated supply voltage	3 x 400-480 V AC
Permissible tolerance of rated voltage	-10 to +10 %
Mains frequency	49 to 61 Hz
Mains-side fusing	min. 3 x 25 A slow-blowing, max. 3 x 32 A slow-blowing

Operating conditions

Ambient temperature	+5 °C to +45 °C
Ambient temperature with cooling unit	optionally up to +50 °C

KUKA smartPAD

KUKA smartPAD – Making robot operation really easy

TOUCH SCREEN. GRAPHICS SUPPORT. FLEXIBLE INTERACTION. The more diverse the robots' abilities become, the greater the importance of intuitive user interfaces for their operation. The new KUKA smartPAD brilliantly demonstrates on a large antireflection touch screen just how simple it can be. Intelligent, interactive dialogs provide the user with those operator control elements that are currently required. This makes work easier, faster, more efficient, and simply smarter all-round.

[+] INTEGRATED USB CONNECTION

[+] UNIVERSAL APPLICATION

ANTIREFLECTION TOUCH DISPLAY [+]

ERGONOMICALLY OPTIMIZED [+]

[+] HOT-PLUGGABLE

[+] HAPTIC JOG KEYS

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2

1 Simple, intuitive operator control via touch screen

2 Ergonomic 6D mouse

1

Features and advantages

UNIVERSAL APPLICATION. Operate all KUKA robots and KR C4 controllers with the KUKA smartPAD.

ANTIREFLECTION TOUCH DISPLAY. Simple operation via the well-lit 8.4" screen with an intuitive user interface.

ERGONOMICALLY OPTIMIZED. Designed to be user-friendly. Built for mobility and its lightweight, just 1,100 grams.

HOT-PLUGGABLE. If the KUKA smartPAD is not being used it can be simply unplugged during ongoing operation and used with any other KR C4 controller.

INTEGRATED USB CONNECTION. Direct saving and loading of configurations now possible via USB port on the KUKA smartPAD.

HAPTIC JOG KEYS. The combination of haptic jog keys and a haptically controlled mouse enables intuitive maneuvering with constant visual contact with the robot.

Teach pendant: KUKA smartPAD

Type	KUKA smartPAD
Display	scratch-resistant industrial touch display
Display size	8.4"
Dimensions (D x W x H)	50 mm x 240 mm x 290 mm
Weight	1,100 g

KUKA function and technology packages

Function and technology packages for the KR C4

KUKA function and technology packages help you to solve specific automation tasks efficiently with minimum programming. KUKA's portfolio of software solutions cover nearly all common areas of application. Using these packages our KUKA system partners implement tailored solutions to meet every customer requirement.

	KUKA function and technology packages
KUKA.WorkVisual	Engineering environment for all KUKA robots for system configuration, programming, data backup, diagnosis, and more.
KUKA.Load	Supports the evaluation of the load on a KUKA robot or the selection of a suitable robot for a given load.
KUKA.UserTech	Fast programming of motion and program sequences using freely definable buttons, input masks and parameter lists.
KUKA.ExpertTech	Faster, simpler programming even for non-experts in KRL code via menu-guided command selection.
KUKA.HMI Zenon	Creation of customized, application-specific user interfaces for visualization and operator control without programming knowledge. Display and operation using the touch panel and keys of the KUKA smartPAD.
KUKA.RemoteView	Allows remote access to the robot via a secure Internet connection, thereby offering the possibility of remote diagnosis or start-up support.
KUKA.VirtualRemotePendant	Allows the use of EtherNet communication to run the user interface of the KUKA smartPAD on an external PC and to operate the robot.
KUKA.RobotSensorInterface	Supports simple and flexible interfacing with sensors in the KR C4. It is also possible to integrate a number of channels with hard real-time requirements.
KUKA.VisionTech	"onBoard" vision system including image processing, camera and sensors. Extensive configuration options enable the flexible use of the robot in an unstructured environment.
KUKA.ConveyorTech	Organizes the cooperation of robots and conveyors. Allows efficient, dynamic handling of parts, even for complex applications.
KUKA.ForceTorqueControl	Takes account of process forces and torques exerted on the workpiece during machining, and controls and adjusts these as specified in the program sequence. In applications such as grinding, polishing, bending or even assembly, this technology package is an indispensable help.
KUKA.SafeOperation	Flexible programming of safe cooperation between humans and machines. Definition of safe workspaces, velocities, envelopes around robot tools, and cooperation with the operator.
KUKA.SafeRangeMonitoring	Beginners' tool for limiting and monitoring the safety and work areas of the robot. The monitoring and limitation of statically defined axis ranges creates an adequate degree of work safety for many applications.

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KUKA function and technology packages

KUKA.Gripper & SpotTech — Programming of grippers and weld guns via easy-to-use inline forms for many industrial applications.

KUKA.ArcTech — For rapid start-up and simple programming of arc welding applications. The complete portfolio of option packages, in combination with sensors and sequence control, enables arc welding at the highest level.

KUKA.LaserTech — A modular, time-saving and easy-to-operate programming support package for laser cutting and laser welding. Both applications can be executed using the same robot – giving maximum flexibility as the workpiece needs to be clamped only once.

KUKA.ServoGun — Enables the operation of electric motor-driven spot weld guns with the KUKA robot controller. Various additional software options allow e.g. the elimination of mechanical gun compensation and other functions.

KUKA.GlueTech — Enables user-friendly programming of dispensing applications such as bonding, seam sealing or application of support seams using inline forms on the KUKA robot controller.

KUKA.RoboTeam — Coordinates and enables the high-precision interaction of a team of robots for handling a shared load or for working together on a moving workpiece.

KUKA.EtherNet KRL — Makes it possible to exchange data with external computers via the EtherNet interface. The robot can function here both as a client and as a server.

KUKA.OPC-Server — Basic technology for standardized data exchange between robots and external controllers for non-real-time information streams. Ideal for interfacing with external visualization and MES systems.

KUKA.PLC Multiprog — Programming environment for an extremely fast Soft PLC conforming to the IEC61131 standard. Expands the functionality of the KR C4 and offers virtually unlimited openness in the programming of automation cells and applications.

KUKA.PLC ProConOS — Runtime system of the KUKA.PLC Multiprog Soft PLC. PLC programs created with KUKA.Multiprog are run directly on the KR C4, with full access to the entire I/O system of the robot. Reading and processing of variables such as axis positions and velocity via function blocks.

KUKA.PLC mxA — Allows direct commanding and positioning of the robot by external controllers (Siemens®, Rockwell®, etc.). The user thus requires no knowledge of robot programming in the KUKA-specific robot language KRL.

KUKA.CNC — Complete software-based CNC implementation for execution of machine tool code (G-code) directly on the robot controller. This turns the robot, with its accuracy and stiffness, into a machining center for path-supported processes.

KUKA.Sim — The simulation programs of KUKA.Sim allow robotic cells to be planned with true-to-life accuracy.

weiskind.com

Contact KUKA at:

www.contact.kuka-robotics.com

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